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10/576,060	08/28/2006	Ralf Dunkel	CS8772BCS033031	2152

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BAYER CROPSCIENCE LP  
Patent Department  
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RESEARCH TRIANGLE PARK, NC 27709

EXAMINER
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OTTON, ALICIA L

ART UNIT	PAPER NUMBER
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1626

NOTIFICATION DATE	DELIVERY MODE
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07/07/2010

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/576,060	<b>Applicant(s)</b> DUNKEL ET AL.	
	<b>Examiner</b> Alicia L. Otton	<b>Art Unit</b> 1626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 April 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 19, 20, 23, 24, 28 and 29 is/are pending in the application.
- 4a) Of the above claim(s) 29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 19, 20, 23, 24 and 28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)         | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Status of Claims***

1. Claims 19, 20, 23, 24, 28 and 29 are currently pending. Claim 29 remains withdrawn from consideration, there being no allowable generic or linking claim.

### ***Continued Examination***

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 13, 2010 has been entered.

### ***Response to Amendments and Arguments***

3. Applicant's arguments and amendments filed April 13, 2010 have been fully considered and entered into the application. All rejections not explicitly maintained herein are withdrawn. The rejections below constitute the full set of rejections being applied to the instant claims. The rejection previously applied under 35 U.S.C. 103 for reading on the elected species is withdrawn in view of Applicant's declaration filed April 13, 2010. Applicants have effectively shown that even in compounds with various different substitutions on the pyrazole ring, efficacy of the instant compounds is significantly better than the comparison compounds having a terminal isopropyl group, rather than a terminal tert-butyl group as in the instant compounds. In addition, when the rate of application of the compound was decreased by ten-fold (i.e. the compound was

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applied in a concentration of 10 times less), the efficacy remained high in the instant compounds, in some cases staying at 100% efficacy, while that of the comparison compounds decreased greatly. These results would not have been expected as the inventive compounds, differing only in an i-Pr vs. t-Bu group at the terminus, would not be expected to retain such a high degree of efficacy when applied at a concentration ten-fold smaller. The Examiner also wishes to note that although the most recently submitted declaration is sufficient to overcome the art over the scope of claim as searched (i.e. where A is A1), the declaration is not commensurate with the entire scope of the instant claims (i.e. where A is A11 or A12). As such, it does not show unexpected results for any species of instant compound wherein A is other than A1.

#### ***Election/Restrictions***

4. Claim 29 remains withdrawn as being drawn to a non-elected invention.

MPEP § 803.02 provides guidelines for election of species in Markush-type claims. These guidelines were followed for the search and examination detailed herein. Therefore, the Markush-type claims were rejected and the subject matter drawn to nonelected species held withdrawn from further consideration. Claims 19-21, 23-24 and 28 were further examined, pursuant to MPEP § 803.02, to the extent necessary to determine patentability. The search has now been extended beyond the elected species to compounds wherein R1 =H, L=L1 wherein R2 =H; A=A1 where R10= CHF2 or CH3, R11= H or F and R12 = CH3; and R3 is methyl.

***Claim Rejections - 35 USC § 112***

***(Second Paragraph)***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 19, 20, 23, 24 and 28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. Regarding claim 19 and 20, and all claims dependent thereon, the claims recite

where the bond labelled with \* is attached to the amide nitrogen atom, and the  
the limitation bond labelled with # is attached to the alkyl side chain, , which  
renders the claims unclear because no bond in the claimed L group is labeled with either  
a “\*” or a “#.” Appropriate correction is required.

b. Claim 23 recites the limitation "formyl or  $-C(=O)C(=O)R_4$ , where  $R_4$  is as defined in claim 19" in the definition of  $R_1$ . There is insufficient antecedent basis for this limitation in the claim since  $R_1$  in claim 19 is limited to hydrogen, C1-C8 alkyl or C1-C6 haloalkyl. Further there is no variable “ $R_4$ ” defined in claim 19, so claim 23 is also unclear because it contains a formula with an undefined variable. Appropriate correction is required.

***New Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in

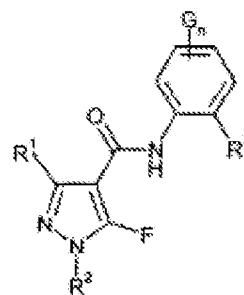
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section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

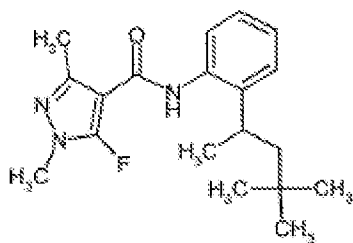
This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
7. Claims 19, 20, 23, 24 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 03/010149, Elbe et al.



8. The '149 publication discloses compounds of the formula as pyrazolylcarboxanilide fungicides. Specifically, the compound of Example 1 on page 47 corresponds to the instantly claimed compounds wherein A = A1, R10=R12=CH3, R11 = F; L=L1, R1 = H; and R3 = CH3. This compound has the following structure:



The '149 publication also discloses that the carboxanilide derivatives of the invention were tested and effective against many different fungal plant pathogens, including *Alternaria* and *Podosphaera* species (See, e.g., Tables B and C) and was found to be effective in controlling each of these microorganisms. The compound taught by the '149 publication is a *prima facie* obvious variant of the elected species. The difference between the compound taught by the '149 publication and the instant claims is the methyl substitution of the first carbon in the alkyl chain.

Hydrogen and methyl substitutions are known in the art and are deemed to be obvious variants of each other. *In re Wood*, 199 USPQ 137. Thus, replacing the methyl with a hydrogen on the C<sub>1</sub> of the alkyl chain, where all other variables are identical to the instant invention, is an obvious variation of the known compound.

The motivation to make the instantly examined species derives from the expectation that

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structurally similar compounds would possess similar biochemical activity (i.e. they would have microbicidal activity on species such as those tested in the '149 publication). Thus, it would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to make the instantly examined species by modifying a methyl group and a hydrogen on the alkyl chain of the compound taught by the '149 publication.

### ***Maintained Double Patenting Rejections***

9. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned



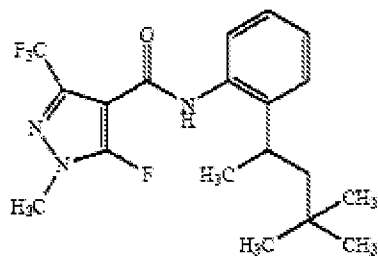
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with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

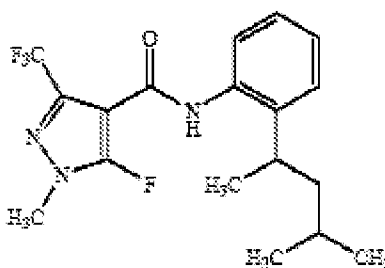
Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

10. Claims 19, 20, 23, 24 and 28 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-7 and 9 of U.S. Patent No. 7358214. Although the conflicting claims are not identical, they are not patentably distinct from each other for the following reasons below.

The recited claims of the '214 patent are drawn to various generic compounds of Formula I and a composition thereof with the addition of extenders and/or surfactants. Additionally, several preferred embodiments in the specification of the '214 patent (see, for example, Compounds 1 and 2) recite obvious variants of compounds in the genus of the instant claims.



COMPOUND 1



COMPOUND 2

The compound taught by the '214 patent recited as Compound 2 fits into the instant genus as a compound wherein L is L-1, A is A1, R3 is H, R10 is C1 haloalkyl having 3 fluorines, R11 is halogen (F), and R12 is C1 alkyl (methyl). Compound 1 has the same substitutions except that R3 in the instant formula (I) is C1 alkyl (methyl). The difference between the instantly claimed

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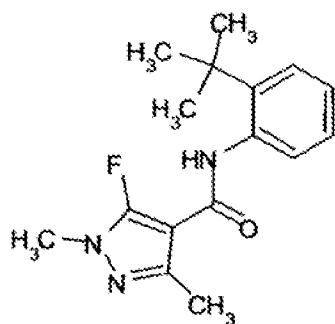
genus and the compounds claimed in the '214 patent is a methyl substitution at the C1 position of the alkyl chain. Additionally, claim 9 of the '214 patent is drawn to a composition for controlling microorganisms comprising one or more compounds of the invention along with the addition of extenders and/or surfactants. In the '214 patent the terms "extenders" and "surfactants" are defined identically as in the instant application, so claim 9 of the '214 patent reads on instant claim 28.

Hydrogen and methyl substitutions are known in the art and are deemed to be obvious variants of each other. *In re Wood*, 199 USPQ 137. Thus, replacing the methyl with a hydrogen on the C<sub>1</sub> of the alkyl chain is an obvious variation of the known compound.

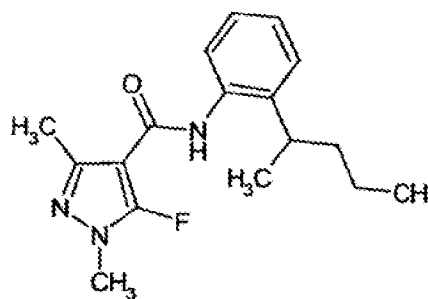
The motivation to make the instantly examined species derives from the expectation that structurally similar compounds would possess similar biochemical activity (i.e. they would be useful in the control of microorganism species). Thus, it would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to make the instantly examined species by modifying a hydrogen to a methyl on the alkyl chain of the compound claimed in the '214 patent.

11. Claims 19, 20, 23, 24 and 28 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 22-28, 31-33, 35 and 38 of copending U.S. Application No. 10/484,108. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented. Although the conflicting claims are not identical, they are not patentably distinct from each other for the following reasons below.

The recited claims of the '108 application are drawn to various generic compounds of Formula (I) and a composition thereof with the addition of extenders and/or surfactants. Additionally, several preferred embodiments in the specification of the '108 application (see, for example, Compounds I-5 and I-17) recite obvious variants of compounds in the genus of the instant claims.



COMPOUND I-5



COMPOUND I-17

The compound taught by the '108 application recited as Compound I-5 fits into the instant genus as a compound wherein L is L-1, A is A1, R<sub>3</sub> is CH<sub>3</sub>, R<sub>10</sub> is C<sub>1</sub> alkyl (methyl), R<sub>11</sub> is halogen (F), and R<sub>12</sub> is C<sub>1</sub> alkyl (methyl). Compound I-17 has the same substitutions except that R<sub>3</sub> in the instant formula (I) is H. The difference between the instantly claimed genus and the compounds claimed in the '108 application is that compound I-5 is a homolog of compounds in the instantly claimed genus (i.e. they differ in that the instant compounds have the successive addition of the same chemical group, namely CH<sub>2</sub>, in the alkyl chain). In Compound I-17 there is a methyl substitution at the C<sub>1</sub> position of the alkyl chain and an H substitution at the C<sub>3</sub> position on the alkyl chain.

Concerning compound I-5, one of ordinary skill in the art would have been motivated, at the time of the invention, to make the modification of alkyl chain on the phenyl ring to arrive at the instantly elected species and composition thereof with a reasonable expectation of obtaining

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a molecule with the same activity as that in the '108 application. To those of ordinary skill in the chemical art, one homologue is not such an advance over adjacent members of the series as requires invention because chemists knowing properties of one member of a series would, in general, know what to expect in adjacent members. *In re Henze*, 85 U.S.P.Q. 261 (1950).

Concerning compound I-17, hydrogen and methyl substitutions are known in the art and are deemed to be obvious variants of each other. *In re Wood*, 199 USPQ 137. Thus, replacing the methyl with a hydrogen on the C<sub>1</sub> of the alkyl chain and replacing the hydrogen with a methyl at the C<sub>3</sub> position of the alkyl chain is an obvious variation of the known compound.

The motivation to make the instantly examined species derives from the expectation that structurally similar compounds would possess similar biochemical activity (i.e. they would be useful in the control of microorganism species). Thus, it would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to make the instantly examined species by modifying a hydrogen to a methyl on the alkyl chain of the compound claimed in the '108 application.

In the same manner as the above obviousness-type double patenting rejections were made, the following rejections also apply to the claims in the instant application:

12. Claims 19, 20, 23, 24 and 28 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 13-17 and 20 of copending U.S. Application No. 10/576,050. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented. Although the conflicting

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claims are not identical, they are not patentably distinct from each other for the reasons applied in the above rejections based on H/CH<sub>3</sub> substitutions.

13. Claims 19, 20, 23, 24 and 28 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 11-15 and 17 of copending U.S. Application No. 10/576,153. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented. Although the conflicting claims are not identical, they are not patentably distinct from each other for the reasons applied in the above rejections based on H/CH<sub>3</sub> substitution.

14. Claims 19, 20, 23, 24 and 28 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-2 and 4 of copending U.S. Application No. 10/583,312. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented. Although the conflicting claims are not identical, they are not patentably distinct from each other for the reasons applied in the above rejections based on H/CH<sub>3</sub> substitution.

15. Claims 19, 20, 23, 24 and 28 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 11-12 and 14 of copending U.S. Application No. 10/557,083. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented. Although the conflicting claims are not identical, they are not patentably distinct from each other for the reasons applied

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in the above rejections based on H/CH<sub>3</sub> substitution. Additionally, the '083 application requires that the instant R<sub>10</sub> group be I. Although the instant claims contain a proviso that R<sub>10</sub> does not represent iodine if R<sub>11</sub> represents hydrogen, R<sub>10</sub> can still be any other halogen. To those skilled in the chemical art, compounds are not patentably distinct when the difference between the claimed compounds and conflicting claims is a difference of one halogen vs. another halogen (such as I vs. Cl). Since both moieties are halogens, the claimed compounds are an analogues or isologues of those in the conflicting claims of the '083 application. *Ex parte Wiseman*, 98 USPQ 277 (1953). The instantly claimed compounds would have been *prima facie* obvious to one skilled in the art at the time the invention was made because one skilled in the art would have been motivated to prepare analogues of the compounds claimed in the '083 application with the expectation of obtaining compounds with similar properties (namely microbicidal properties).

16. Claims 19, 20, 23, 24 and 28 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-2 and 4 of copending U.S. Application No. 10/597,723. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented. Although the conflicting claims are not identical, they are not patentably distinct from each other for the reasons applied in the above rejections based on H/CH<sub>3</sub> substitutions. Additionally, the '723 application requires that the R<sub>2</sub> group is substituted by a halogen. In the case where the halogen is fluorine, the compounds of the '723 application are deemed to be obvious variants of the instantly claimed compounds. H and F are known to be bioisosteric substitutions, which are well known in the art. See Patani et al., *Chem Rev.*, 1996, 96, 3147-76, especially page 3149. One of ordinary skill in

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the chemical art would have had *prima facie* obvious motivation at the time the invention was made to make the instantly claimed compounds because of the expectation that structurally similar, isosteric compounds would possess similar activity (i.e. they would be useful as microbicides).

17. Claims 19, 20, 23, 24 and 28 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 20-22, 24-28 and 30 of copending U.S. Application No. 10/576,243. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented. Although the conflicting claims are not identical, they are not patentably distinct from each other for the reasons applied in the above rejections based on H/CH<sub>3</sub> substitutions and H/F isosteric substitution.

### ***Response to Remarks***

18. Applicant states that the claimed invention is patentably distinct from each cited patent and copending application. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the copending claims. In order to overcome these rejections, terminal disclaimers must be filed or the claims otherwise amended such that the copending/patented claims no longer read on the instant invention.

*Conclusion*

19. No claims are allowed.
20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia L. Otton whose telephone number is (571)270-7683. The examiner can normally be reached on Monday - Thursday 6:00-4:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Joseph McKane can be reached on (571)272-0699. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Alicia L. Otton/  
Examiner, Art Unit 1626

/Golam M. M. Shameem/  
Primary Examiner, Art Unit 1626